

Section 2: Definitions & Building Blocks

Getting Started with TAS !



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Intro to the Technical Standards



Navigating the Manual

The TAS manual is like any other code book.

It is not necessary to memorize the book, but you do need to know how to find the information you need.



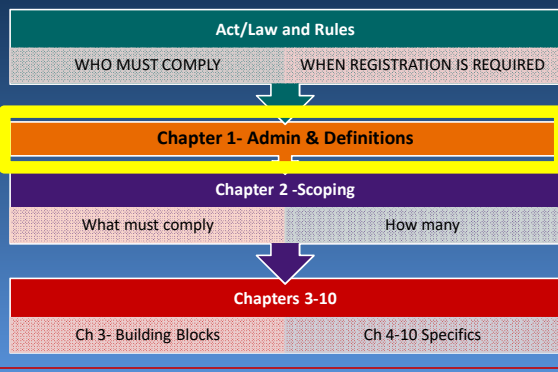
2012 Texas Accessibility Standards Reference Guide

2012 Texas Accessibility Standards Reference Guide	Scoping	Technical
Accessible Routes	101	401
Accessible Entrances	102	402
Accessible Exits	103	403
Accessible Means of Egress	104	404
Accessible New Buildings and Additions	105	405
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Accessible Routes - Circulation	199	499
Accessible Routes - Circulation	200	500

A *Reference Guide* has been provided in the Handouts to identify the **scoping** and **technical** sections for some elements and spaces subject to the 2012 TAS.

The information on the guide is similar to the information provided in the Index.

The Book



101.1 General

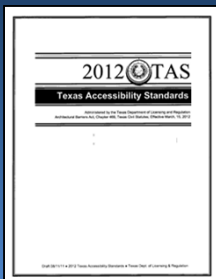
The requirements (of the 2012 TAS) are applied during the design, construction, additions to, and alteration of...

- Sites
- Facilities
- Buildings and
- Elements...



...to the extent required by regulations issued by TDLR under the authority of Texas Government Code, Chapter 469.

101.1 General



These standards are intended to be consistent to those contained in the 2010 Standards for Accessible Design, and are generally the same *except as noted in italics*.

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104 Conventions

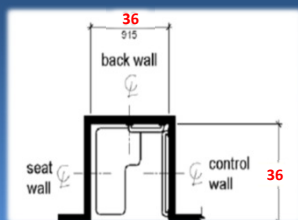


104.1 Conventions

Dimensions that are not stated as “maximum” or “minimum” are absolute.

Example: 608.2.1

“Transfer type shower compartments shall be 36” by 36” clear inside dimensions measured at the center points of opposing sides.”



Advisory 104.1.1 Construction & Manufacturing Tolerances

Where the requirement states a specified range, such as in Section 609.4 where grab bars must be installed between 33” and 36” above the floor, the range provides an adequate tolerance and there are **no tolerances** outside of the range at either end point.

104.2 Calculation of Percentages

Where the **required number of elements** or facilities to be provided is determined by calculations of ratios or percentages and remainders or fractions result...

Number of Elements or Facilities:
Rounding up is required

...the **next greater whole number** of such elements or facilities shall be provided.

Example: 104.2 Percentages Number of Elements or Facilities

Where sinks are provided, at least 5%, but no fewer than **one of each type** provided in each accessible room or space shall comply with 606 (212.3).



25 lab sinks of the same type in the room
 $25 \times .05 = 1.25$
 2 accessible sinks are required

104.2 Calculation of Percentages

Size or Dimension of Element or Facility:

Rounding down is permitted for values less than $\frac{1}{2}$ where the determination of the required size or dimension of an element or facility involves ratios or percentages...

Size of Elements or Facilities:
Rounding down
 is permitted

104.3 Figures

Unless specifically stated otherwise, figures are provided for information purposes only.

Note: The only standard that will specifically refer to compliance with a figure is 703.7.2 which applies to the international symbols.



All requirements are in the text, NOT the figures.

Example: 104.3 Figures Importance of the Text

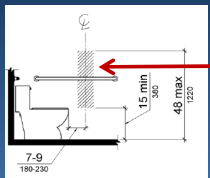


Figure 604.7 implies that a toilet paper dispenser can be behind the grab bars.

This is not correct.

604.7 Dispenser. The outlet of the dispenser shall be 15" minimum and 48" maximum above the finish floor and *shall not be located behind grab bars.*

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Advisory Notes and Figures



201.1 Scope- Advisory Notes



Unless specifically stated otherwise, **Advisory Notes and Figures** explain or illustrate the requirements of the standards, but do not establish enforceable requirements.

Enforceable Advisories

Some advisories specifically state that an element or space *“shall”* or *“must”* comply. Based on TAS 106.1, these terms have the indicated meaning which are requirements, not advice.

These terms meet the criteria of *“specifically stated otherwise”* in establishing an enforceable requirement.



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102 Dimensions for Adults & Children



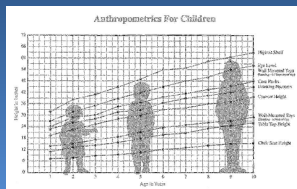
102 Dims for Adults & Children

The technical requirements are based on adult dimensions and anthropometrics.



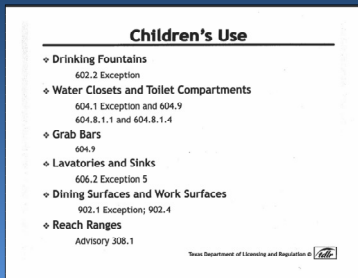
102 Dims for Adults & Children

This document includes technical requirements based on children's dimensions and anthropometrics, which are **permitted but not required**.



Handout

We have included a Children's Use handout in your Handouts packet.



Example: 604.1 Exception



Water closets and toilet compartments for children's use are **permitted** to comply with 604.9.

NOTE: Adult heights are required if the option to comply with 604.9 is not exercised.

Example: 604.9.1 Location WC

The centerline of the water closet shall be 12" min and 18" max from the side wall or partition.

Advisory 604.9 Specifications for Water Closets Serving Children Ages 3 through 12			
	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
Water Closet Centerline	12 inches (305 mm)	12 to 15 inches (305 to 380 mm)	15 to 18 inches (380 to 455 mm)

It is not a violation for the centerline of the water closet for ages 3 and 4 to be 12" o.c. since the text in 604.9.1 allows 12"- 18".

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103 Equivalent Facilitation



103 Equivalent Facilitation

Nothing in these requirements (TAS) prevents the use of designs, products, or technologies as alternatives to those prescribed, provided...

...they result in substantially equivalent or greater accessibility and usability.

Equivalent facilitation requires a variance based on Advisory 103.

Example: 103 Equivalent Facilitation

A request to allow a portion of a trail to comply with the Outdoor Developed Areas Guidelines can be considered as equivalent facilitation through the **variance** process.



The request must reference the specific section(s) of the proposed alternative standard and its applicable location.

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105 Referenced Standards



105.1 General Referenced Standards

The standards listed in 105.2* are incorporated by reference in this document and are part of the requirements **to the prescribed extent** of each such reference.

Copies of the referenced standards may be obtained from the referenced publishers / distributors.

* ANSI/BHMA, ASME, ASTM, ICC/IBC, NFPA

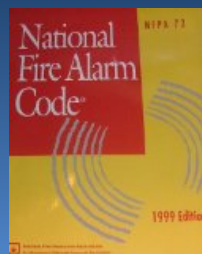
Excerpt from RAS Bulletin 2012-01

"The Department is not the authority having jurisdiction for ensuring compliance with the International Building Code (IBC) or any of the other referenced standards in section 105.2 of the 2012 TAS."



Consequently, a RAS has **no authority** to verify compliance with the IBC or any of the other referenced standards in section 105.2.

106.2 Terms Defined in Referenced Standards

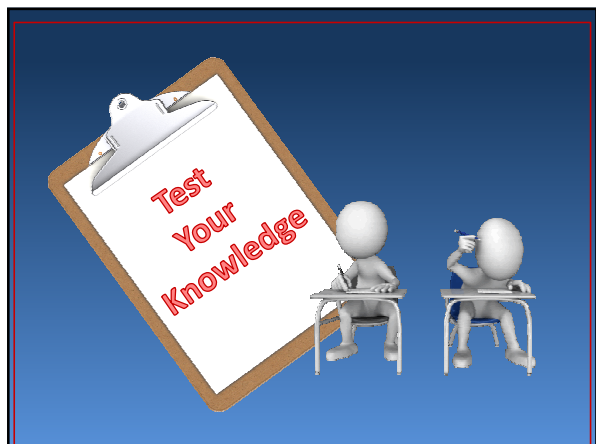


Terms not defined in 106.5 or in regulations issued by TDLR to implement Chapter 469, but specifically defined in a referenced standard, **has the specified meaning from the referenced standard** unless otherwise stated.

106.3 Undefined Terms

The meaning of terms not specifically defined in 106.5 or in regulations issued by TDLR to implement Chapter 469, or in referenced standards, are as defined by collegiate dictionaries in **the sense that the context implies**.





Your Take On It

The GC put the top of the handrails on the ramps at 39". He says they are "within construction tolerances".

4" of tolerance is already built in

(a) stairs (b) ramps (c) walking surfaces

Figure 505.4 Handrail Height

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**Some
Important
Definitions**

106.5.61 Site

A parcel of land bounded by a property line or a designated portion of a public right-of-way.



106.5.3 & 202.2 Addition

An expansion, extension, or increase in the gross floor area or height of a building or facility.



Each addition to an existing building or facility must comply with the requirements for **new construction**.

Rule 68.10(2) Renovation, Modification, or Alteration

Any construction activity, including demolition, involving any part or all of a building or facility.



106.5.5 Alterations

A change to a building or facility that affects or could affect **the usability** of the building or facility or portion thereof.

Alterations include (but are not limited to):

- Resurfacing of circulation paths or vehicular ways
- Changes or rearrangement of the structural parts or elements
- Changes or rearrangement in the plan configuration of walls and full-height partitions

Example: Flooring

The replacement of floor covering affects the usability of the space by persons with mobility impairments. Therefore, it is an **alteration**.

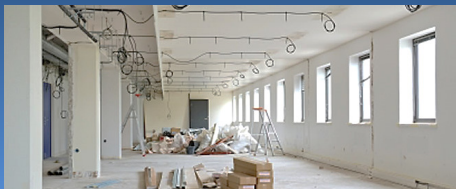


A common misconception is that an element that is replaced with the same type of material is not an alteration (in example, replacing old tile with new tile of the same style).



202.3 Alterations

Where existing elements, spaces, or common use areas are altered, each altered element, space, or common use area must comply with the applicable requirements of Chapter 2.



202.3.1 Prohibited Reduction in Access

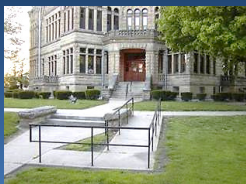
An alteration that decreases, or has the effect of decreasing, the accessibility of a building or facility below the **requirements for new construction at the time of the alteration** is prohibited.



For example, knob style door hardware cannot be used to replace lever door hardware.

202.3 Alterations - **Exception 1**

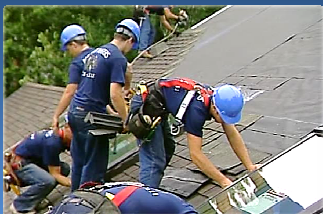
Where elements or spaces are altered,
and the circulation path to the altered element or space is not altered,
an accessible route is not required...



unless required by 202.4 (Alterations affecting Primary Function Areas).

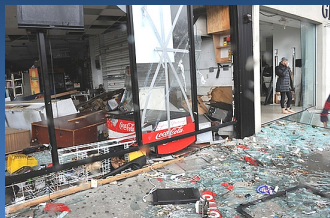
106.5.5 Alteration

Normal maintenance, reroofing, painting or wallpapering, or changes to mechanical and electrical systems are not alterations **unless** they affect the usability of the facility by persons with disabilities.



What is Normal Maintenance?

Normal maintenance means “keeping something in good condition”. The key is, what is “normal”?



Is it “normal” for a building to burn, flood, or be damaged by a natural disaster?

SCENARIO

A store was flooded by Hurricane Harvey. The owners are going to remove:

- Carpet, tile, and floor coverings.
- Damaged doors and trim.
- Counters and cabinets for refinishing.
- Sheet rock to 36” a.f.f. on the walls.

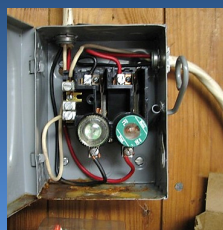
SCENERIO- cont.

- All the walls will stay in the same place.
- New wall finishes will be the same as they were.
- All the new flooring will be the same type as the old flooring.
- The counters and cabinets will be refinished and put back in the same place.
- Everything will be put back "the way it was".

Reconstruction is specifically identified in TAS 106.5.5 as being an **"alteration."**

It is never acceptable to rebuild or replace a subject building, facility, element, or space **"like it was before"** unless it was in full compliance with TAS.

Is it acceptable to reconstruct a building using the electrical, plumbing, or fire safety code that was in effect when the building was built?



Maintenance or Alteration?



Example: Parking Lot




Filling potholes in an existing parking lot is an example of **normal maintenance**.

Rebuilding or resurfacing a parking lot is an example of an **alteration**.




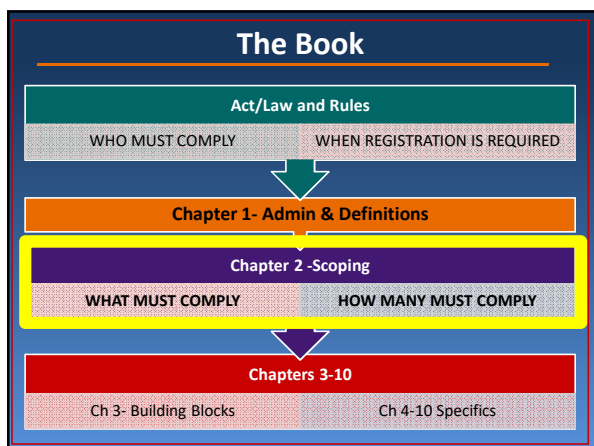
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Chapter 2 Scoping





201.1 Scope

These requirements apply to **all areas** of **newly** designed and newly constructed buildings and facilities, and altered portions of existing buildings and facilities unless exempted...

...or where **scoping** limits the number of multiple elements required to be accessible.

In some instances, there may be a "5%" rule provided in the scoping.



201.2 Application Based on Building or Facility Use

Scoping is applied based on the type of facility/use of space.

"Where a site, building, facility, room, or space **contains more than one use**, **each portion** shall comply with the applicable requirements **for that use.**"

Example: 201.2 Transient Lodging

If a hotel has guest rooms, a restaurant, and a sales and service counter...

Each space and element would be subject to applicable provisions of TAS, including, but not limited to:

- 224 Transient Lodging
- 226 Dining Surfaces
- 227 Sales and Service Counters



201.1 Scope - Exception

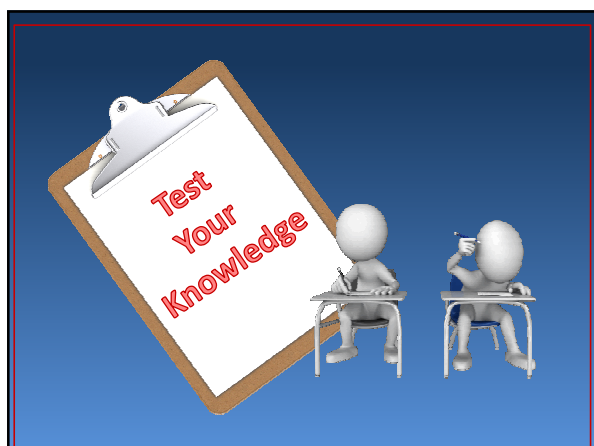
Those portions of a residence used in the operation of a commercial facility or public accommodation, or that portion used for **both** the business and for residential, must comply with the Standards.



201.1 Scope - Exception

The portion of the residence used in the operation of the commercial facility or public accommodation includes to the following elements:

- Means of entry, (including the homeowner's front sidewalk, if any)
- The door or entryway, and hallways
- Restrooms (if available to employees or visitors)
- Those portions of the residence, interior or exterior, available to or used by employees or visitors.



Applying **Scoping** & Technical



How many lockers are required by TAS to be accessible?

**CHAPTER 2
SCOPING
REQUIREMENTS**



225.2.1 Lockers

[Page 53 of Book](#)

SCOPING: 225 Storage
225.2.1 Lockers

“Where lockers are provided, at least 5%, but no fewer than one of each type, shall comply with 811.”



811 Storage

TECHNICAL: Storage

TAS 811 tells us what makes a locker accessible.

[TAS 811 is on Page 174](#)



811 Storage (Page 174)

811.1 General. Storage shall comply with 811

811.2 Clear Floor or Ground Space. A clear floor or ground space complying with 305 shall be provided


811.3 Height. Storage elements shall comply with at least one of the reach ranges specified in 308

811.4 Operable Parts. Operable parts shall comply with 309

*These are the **Technical Requirements.***


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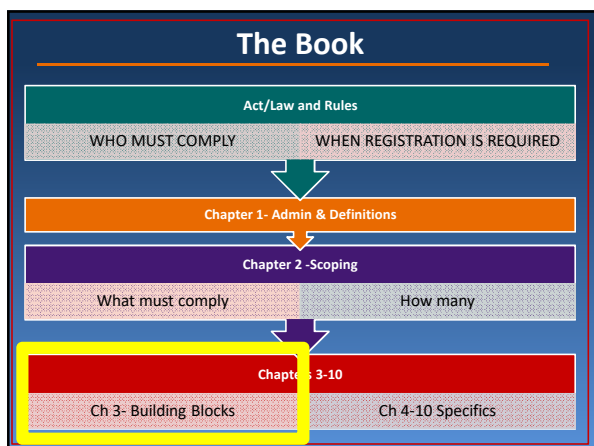
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Chapter 3

Building Blocks





301 Building Blocks

Building Blocks are the basic requirements applicable to almost all elements and spaces required to be accessible.



Apply:

- Where required by **Chapter 2**
- Where referenced by a **Technical Requirement**

811 Storage (Page 174)

811.1 General. Storage shall comply with 811

811.2 Clear Floor or Ground Space. A clear floor or ground space complying with **305** shall be provided

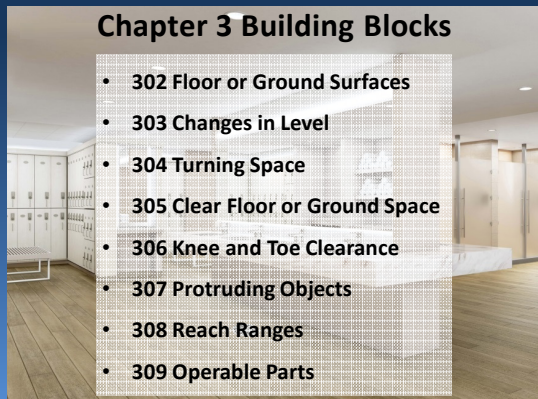
811.3 Height. Storage elements shall comply with at least one of the reach ranges specified in **308**

811.4 Operable Parts. Operable parts shall comply with **309**

*These are the **Building Blocks**.*

Chapter 3 Building Blocks

- **302 Floor or Ground Surfaces**
- **303 Changes in Level**
- **304 Turning Space**
- **305 Clear Floor or Ground Space**
- **306 Knee and Toe Clearance**
- **307 Protruding Objects**
- **308 Reach Ranges**
- **309 Operable Parts**



302 Floor or Ground Surfaces

302.1 General Floor or Ground Surfaces



Floor or ground surfaces must be

- Firm
- Stable
- Slip resistant



What is a **firm** surface?

One that resists deformation by either indentations or particles moving on its surface.

Soft or loose materials do NOT meet this criteria.

What is a **stable** surface?

- One that remains unchanged by contaminants or applied force.
- The surface returns to its original condition when the contaminant or force is removed.



What is a **slip resistant** surface?

“A surface that provides sufficient frictional counterforce to the forces exerted in walking to permit safe ambulation.”

Slip Resistant

Slip Prevention 'R' Ratings for Flooring Surfaces in **SHOD FEET** Environments to avoid slip injury claims

VERY POOR Slip Injuries certain to occur	POOR Slip Injuries likely to occur	BETTER But can still fail Pendulum Tests	GOOD minimum recommended	BEST especially on slopes
R9	R10	R11	R12	R13



The UK laws on floors insist on a minimum R11 when DRY, WET or CONTAMINATED

302 Floor or Ground Surface

- Firm
- Stable
- Slip Resistant?



302.2 Carpet

Have a firm cushion, pad or backing (or no cushion or pad)



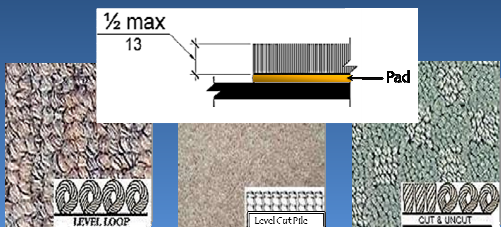
302.2 Carpet, cont.

Exposed edges of carpet shall be fastened to floor surfaces and shall have trim on the entire length of the exposed edge.



302.2 Carpet, cont.

- Carpet must have a level loop, level cut pile, or level cut/uncut pile texture.
- Pile height shall be $\frac{1}{2}$ " maximum.



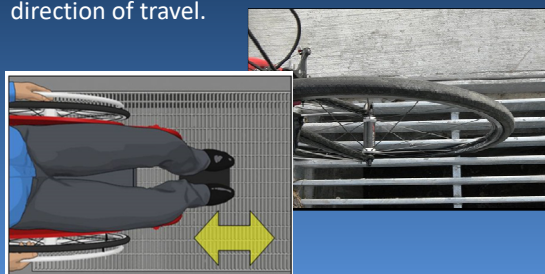
302.3 Openings

Openings in floor or ground surfaces shall not allow passage of a sphere more than $\frac{1}{2}$ " diameter.



302.3 Openings

Elongated openings shall be placed so that the long dimension is **perpendicular** to the dominant direction of travel.



302.3 Openings

Openings that are more than $\frac{1}{2}$ " are allowed at elevator hoistways, platform lift sills, rail station platforms, and track crossings.



303 Changes in Level

303.1 General Changes in Level

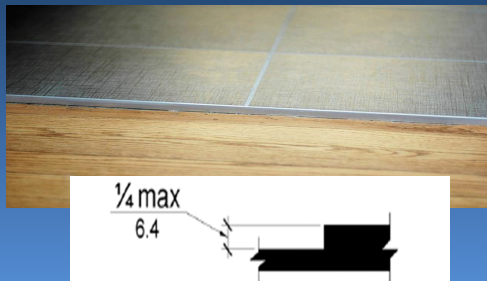


Where changes in level in floor or ground surfaces are not permitted, the surface must be level (slope of 1:48 max.).

Where changes in level *are* permitted, they must comply with TAS 303.

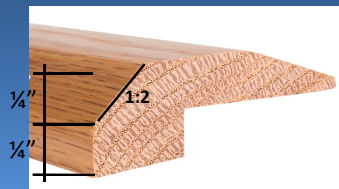
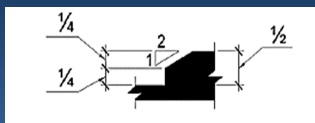
303.2 Vertical

Vertical changes in level of $\frac{1}{4}$ " high max are permitted.



303.3 Beveled

Changes in level between $\frac{1}{4}$ " high min. and $\frac{1}{2}$ " high max. shall be beveled with a slope no steeper than 1:2



303.3 Beveled

Changes in level greater than $\frac{1}{2}$ " must be ramped and comply with:

- 405 (Ramps)
- 406 (Curb Ramps)



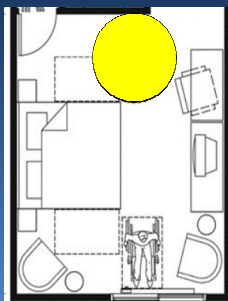




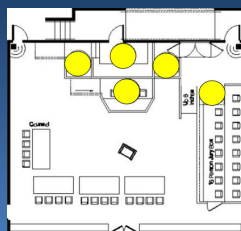
There are 12 accessible rooms and spaces that **specifically require a turning space**:

1. Toilet and bathing facilities (603.2.1)
2. Saunas and steam rooms (612.3)
3. Dressing, fitting, and locker rooms (803.2)

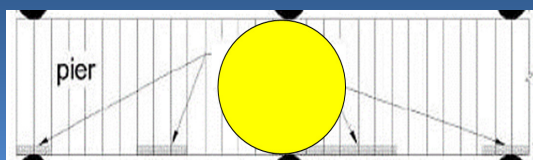
4. Transient lodging guest rooms (806.2.6)
5. Residential dwelling units (809.2.2)
6. Medical and long-term care patient rooms (805.2)



7. Courtroom stations accessed by ramps or lifts (808.2)
8. Holding and housing cells (807.2.1)



9. Amusement ride load/unload areas (1002.3)
10. Fishing piers and platforms (1005.5)
11. Play components (1008.4.1)
12. Shooting Facilities (1010.1)

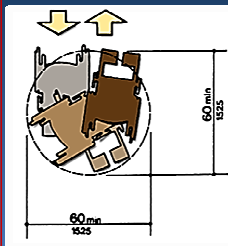


Handout

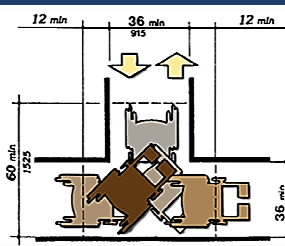
We have included a handout in your Handouts packet that lists the twelve areas requiring a Turning Space.

- AREAS REQUIRING TURNING SPACE**
There are 12 accessible rooms and spaces that specifically require a turning space:
1. Toilet and bathing facilities (603.2.1)
 2. Saunas and steam rooms (612.3)
 3. Dressing, fitting, and locker rooms (803.2)
 4. Transient lodging guest rooms (806.2.6)
 5. Residential dwelling units (809.2.2)
 6. Medical and long-term care patient rooms (805.2)
 7. Courtroom stations accessed by ramps or lifts (808.2)
 8. Holding and housing cells (807.2.1)
 9. Amusement ride load/unload areas (1002.3)
 10. Fishing piers and platforms (1005.5)
 11. Play components (1008.4.1)
 12. Shooting facilities (1010.1)

304.3 Size



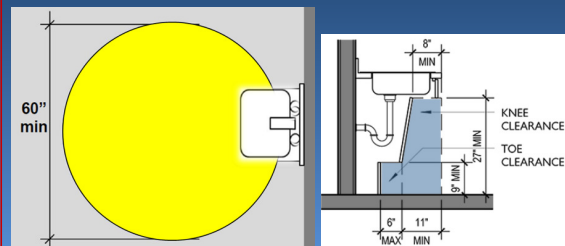
Circular Space
(304.3.1)



T-Shaped Space
(304.3.2)

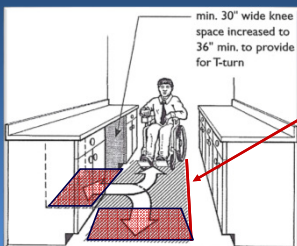
304.3.1 Circular Space

The space is permitted to include knee and toe clearance complying with 306.



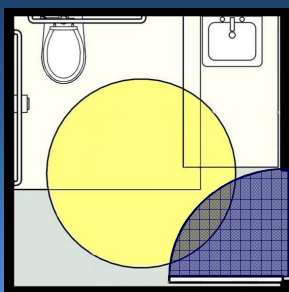
304.3.2 T-Shaped Space

The space can include knee and toe clearance complying with 306 only at the **end of either the base or one arm.**



60" front of "T" must always be unobstructed.

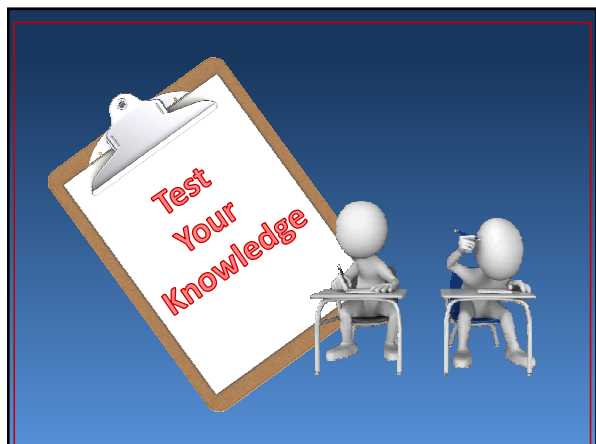
304.4 Door Swing



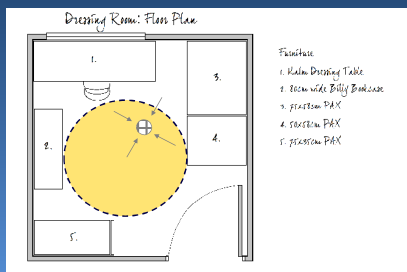
Doors are permitted to swing into turning spaces.

304 Turning Space





A theater uses unpaid actors that are hoping for a “big break”. A dressing room is provided in a renovated furnace room. The floor of the room slopes 1” per 36” toward a floor drain. Is this OK?

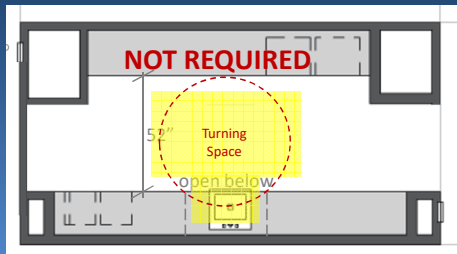


Changes in level are not permitted in a turning space*



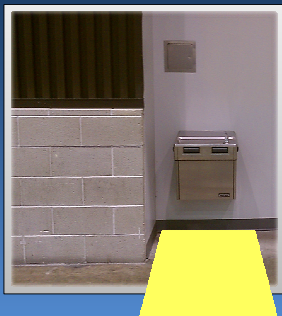
*Excluding slopes not steeper than 1:48

This is an employee break room. Where does the turning space need to be?



305 Clear Floor or Ground Space

305 Clear Floor or Ground Space



Clear spaces are required at accessible elements, fixtures, and controls so that people with disabilities, including those who use wheelchairs, can approach and use them.

Maneuvering Clearance

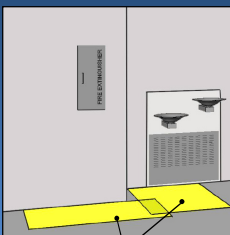
Clear Floor Space and Maneuvering Clearance at doors are not the same thing, and do **not** have the same requirements.



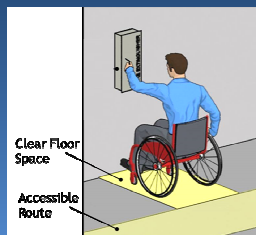
This is **NOT** Clear Floor Space

305.6 CFS Approach

One **full unobstructed** side of the clear floor or ground space must adjoin an accessible route or adjoin another clear floor or ground space.



Clear Floor Space



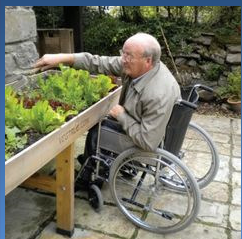
Clear Floor Space
Accessible Route

Your Thoughts?



305.5 Position

Unless otherwise specified, clear floor or ground space can be positioned for either a **forward** or **parallel** approach to an element.



Forward Approach



Side Approach

305.3 Size



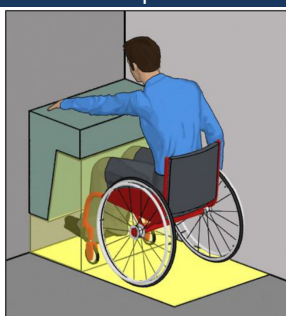
Unless otherwise specified, clear floor or ground space **can include** **knee and toe** clearance.

Toe Space



Objects that provide clearance for toes can overlap a portion of the clear floor space.

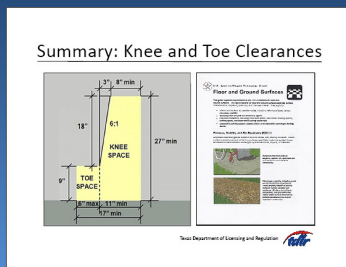
Knee Space



Objects that provide clearance for knees and toes can overlap a greater portion of the clear floor space (up to a depth of 25").

Handout

We have included a handout in your Handouts packet that summarizes Knee & Toe Clearances.



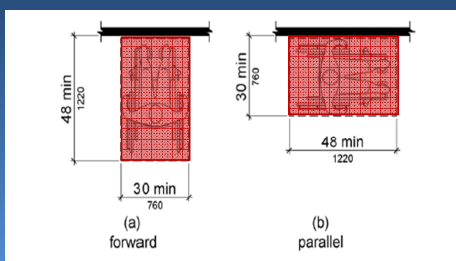
CFS Centering

Clear floor space must be centered on the element it serves only when specifically stated, otherwise centering is not required.

- 602.2 - Drinking Fountains
- 611.2 - Washing Machines & Dryers
- 703.4.2 - Tactile Signs
- 804.3.1 - Residential Kitchen Work Surfaces
- 904.4 Exception - 24" Sales & service Counters
- 1009.4.1 - Pool Transfer Walls

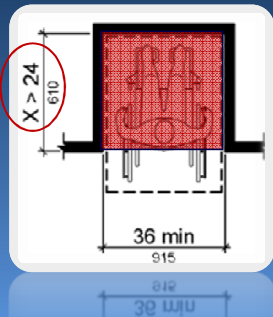
Clear Floor Space Size

Clear floor or ground space shall be **30" min. x 48" min.**



305.7.1 Forward Approach Alcoves

When a CFS is confined on all or part of 3 sides, and the depth exceeds 24", an alcove is created and the CFS must be 36" wide.

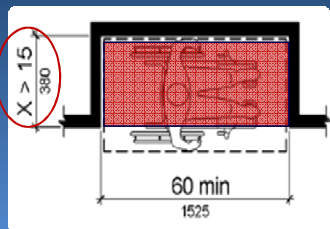


305.7.1 Forward Approach - Alcove

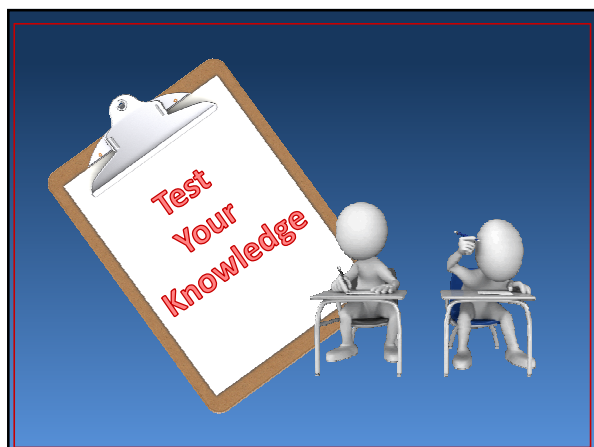


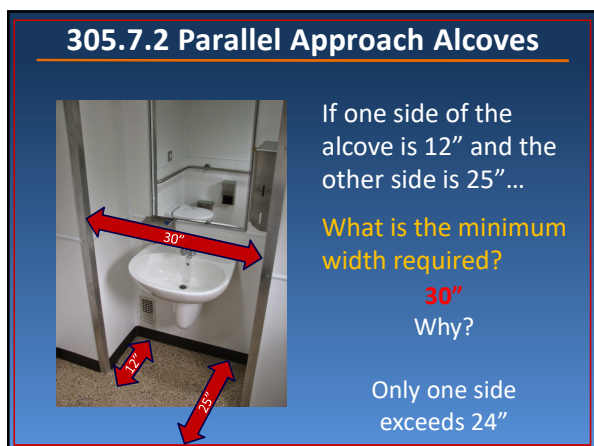
305.7.1 Parallel Approach Alcoves

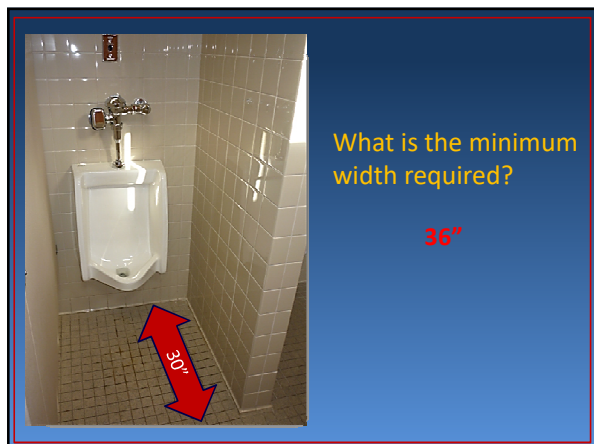
Alcoves must be 60" wide minimum where the depth exceeds 15".











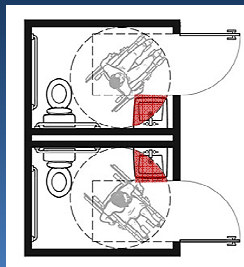


Knee & Toe Clearances Required

1. Drinking Fountains
2. Lavatories & Sinks
3. Dining & Work Surfaces
4. Sales & Service Counters
5. When using a forward approach

306.1 Knee and Toe Clearance

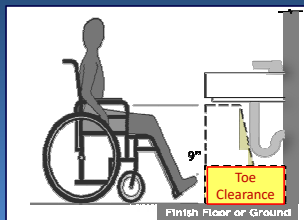
Required when the space **beneath an element** is included as part of clear floor or ground space or turning space.



Additional space is not prohibited beneath an element but it is not considered part of the clear floor or ground space or turning space.

306.2.1 Toe Clearance

Space under an element between the finish floor or ground and 9" a.f.f. is considered **toe clearance**.

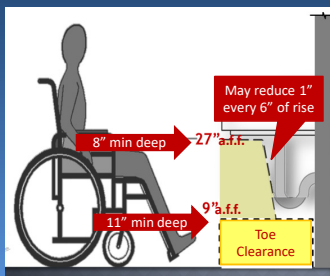


306.3.1 Knee Clearance

Space under an element between 9" and 27" a.f.f. is considered **knee clearance**. Knee clearance is:

- **11" deep min**
@ 9" a.f.f.
- **8" deep min**
@ 27" a.f.f.

Can be reduced at a rate of 1" for each 6" in height.

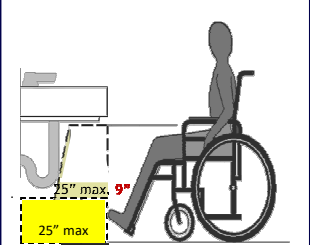
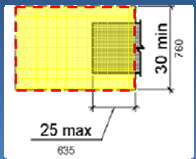


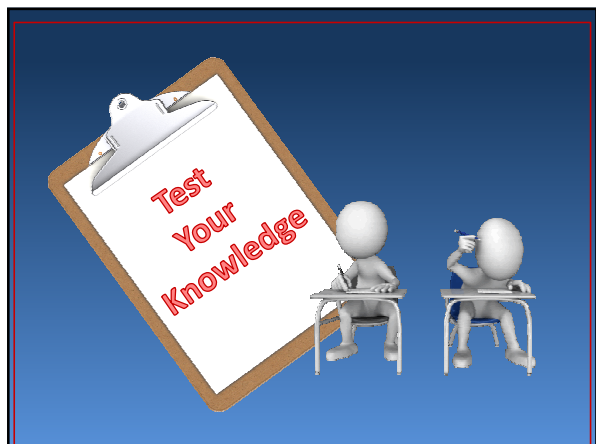




306.3.2/306.2.2 Maximum Depth

Toe clearance may extend **25" max** under an element. Knee clearance may extend **25" max** under an element at 9" a.f.f.



Your Take On It

A boutique hotel has pedestal sinks in the bathrooms...

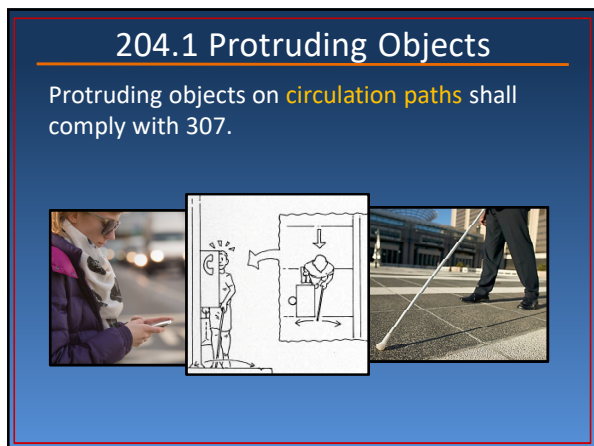
Toe clearance must extend 17" min under the lavatory between the finish floor and 9" a.f.f.

Knee clearance must be 8" deep @ 27" a.f.f.

Clearances are measured in relation to the usable clear floor space.







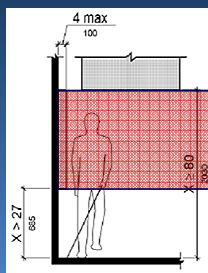
106.5.19 Circulation Path

An exterior or interior way of passage provided for pedestrian travel, including but not limited to, walks, hallways, courtyards, elevators, platform lifts, ramps, stairways, and landings.



307.2 Protrusion Limits

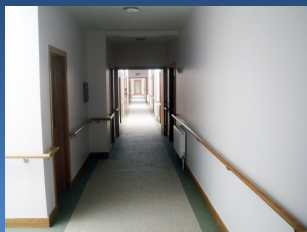
Objects with leading edges more than 27" and not more than 80" above the finish floor or ground shall protrude 4" maximum horizontally into the circulation path.



307.2 Protrusion Limits

Exception

Handrails shall be permitted to protrude 4 ½" max.



Counters and bars are potential protruding objects.



Typical Protruding Objects



- Hand Dryers
- Towel Dispensers
- Shelves

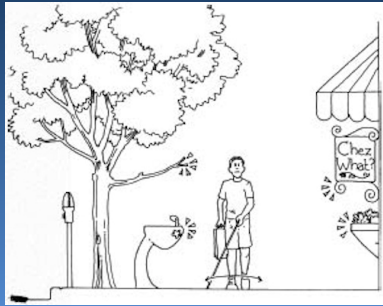


Typical Protruding Object



Exterior Examples

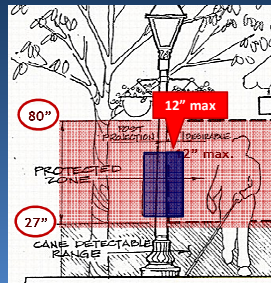
- Light fixtures
- Handrails
- Signs



307.3 Post-Mounted Objects

Free-standing objects mounted on posts or pylons can over-hang circulation paths **12"** maximum...

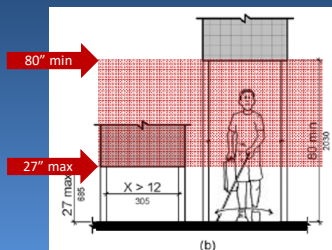
...when located between **27"** minimum and **80"** maximum.



307.3 Between Posts or Pylons

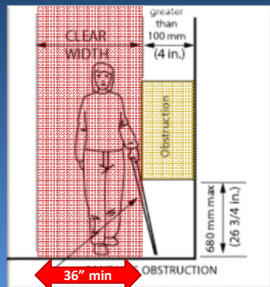
Where a sign or other obstruction is mounted between posts or pylons, and the clear distance between the posts or pylons is **greater than 12"**...

The lowest edge of such sign or obstruction must be **27" max or 80" min. a.f.f.**



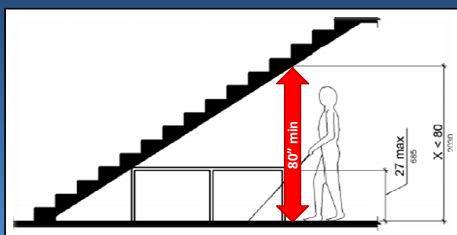
307.5 Required Clear Width

Detectable objects cannot reduce the clear width required for accessible routes.



307.4 Vertical Clearance

Vertical clearance shall be 80" high minimum.



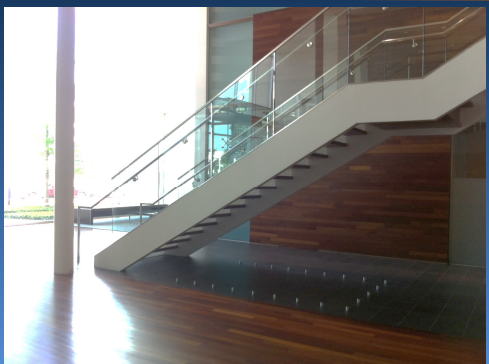
307.4 Vertical Clearance

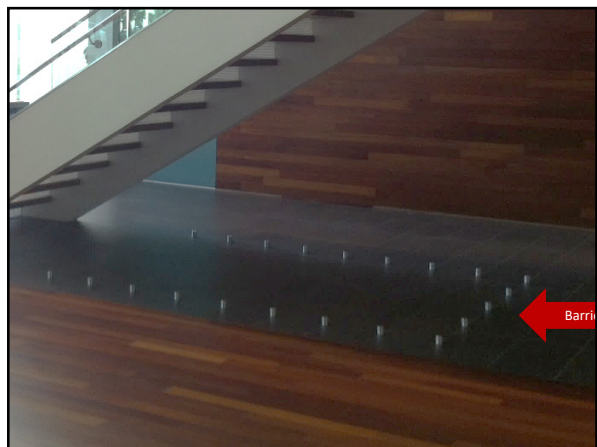
Vertical clearance must be 80" high minimum.

- Guardrails or other barriers must be provided where the vertical clearance is less than 80" high.
- The leading edge of the guardrail or barrier must be located 27" a.f.f. maximum.



Your Take On It





Your Take On It

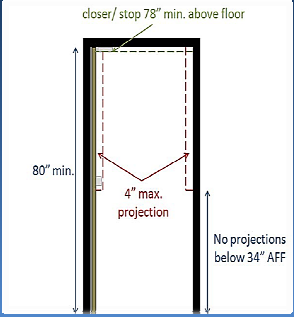




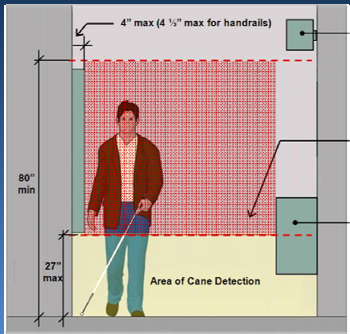
Slanted walls can be protruding objects.

307.4 Vertical Clearance Exception

Door closers and door stops can be 78" min a.f.f. (in lieu of 80")



Summary: Protrusion Limits



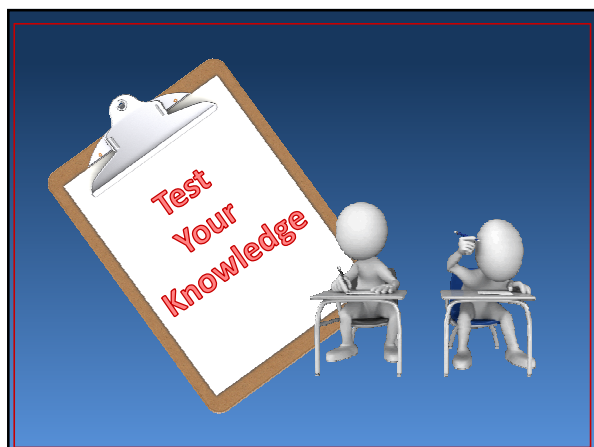
Objects above 80" can protrude any amount.

Objects between 27" & 80" can protrude no more than 4".

Objects at or below 27" can protrude any amount.

Protruding objects cannot reduce the min width of an accessible route.







Protruding Object?





Figure C602.1
DRINKING FOUNTAINS IN ALCOVE



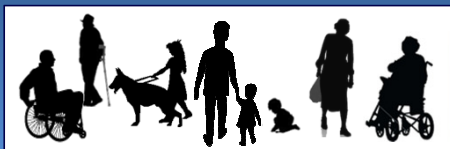
Alcove adjacent to standing height unit alleviates violation with 307.2.

308 Reach Ranges

308.1 General- Reach Ranges

Reach ranges shall comply with 308.

- **Permitted:** Children's Reach Ranges (handout provided in your packet)
- **Required:** Adult Reach Ranges

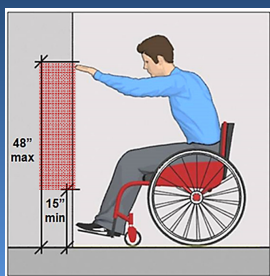


308.1 Forward Reach

308.2.1 Unobstructed Forward Reach

Where a forward reach is **unobstructed**:

- High forward reach shall be **48" max** a.f.f.
- Low forward reach shall be **15" min** a.f.f.

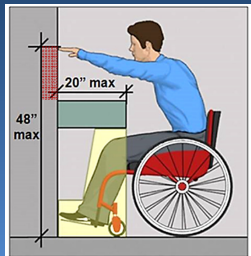


308.2.2 Obstructed High Reach Forward Reach

Where a forward reach is **obstructed...**

And the reach **depth** is 20" or less,

The **high** forward reach is 48" max.

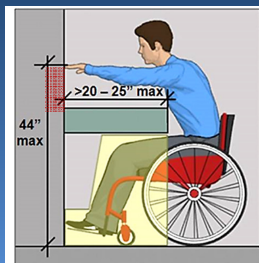


308.2.2 Obstructed Reach, Forward

Where the reach depth **exceeds 20"**...

... the high forward reach is **44" max.**

(The reach depth may be **25" max.**)



308.2.2 Obstructed High Reach Forward Reach

...the **clear floor space** must extend beneath the element for a distance **not less than the required reach depth** over the obstruction.

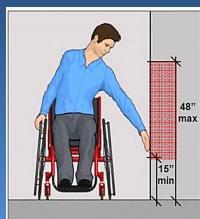


308.3 Side Reach

308.3.1 Unobstructed Side Reach

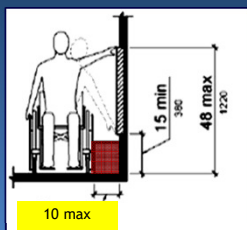
Where a clear floor or ground space allows a **parallel approach** to an element and the side reach is **unobstructed**...

- High side reach is **48" max** a.f.f.
- Low side reach is **15" min** a.f.f.



308.3.1 Unobstructed Exception 1

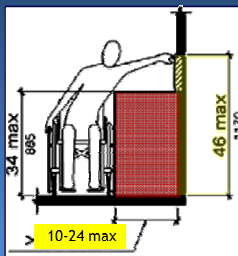
An obstruction is permitted between the clear floor or ground space and the element where the depth of the obstruction is **10" max**.



308.3.2 Obstructed Side Reach

Where the reach depth exceeds 10" ...

- 46" max high side reach
- 24" max reach depth



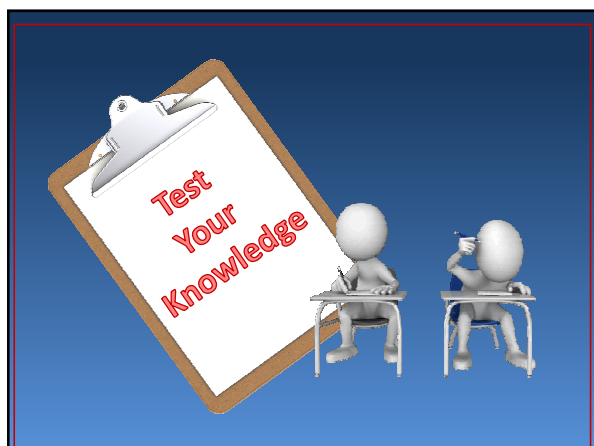
308.3.1 Unobstructed Reach Exception

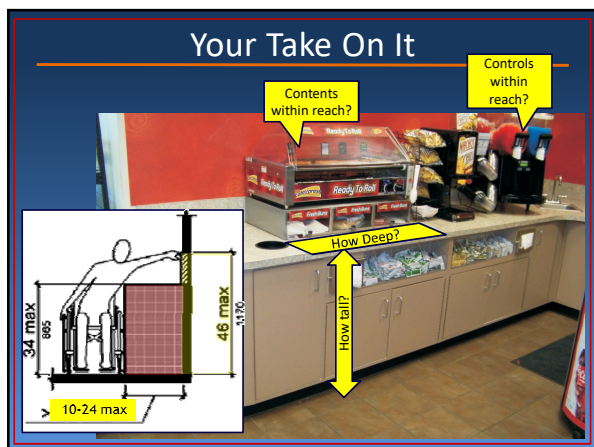


Operable parts of fuel dispensers shall be permitted to be 54" maximum from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

308 Reach Ranges









309 Operable Parts


106.5.40 Operable Part

A component of an element used to...

- Insert objects
- Withdraw objects

or to


- Activate
- Deactivate
- Adjust the element



*The actual operation of a key, padlock, or other device or element that **is not fixed** is not subject to compliance.*

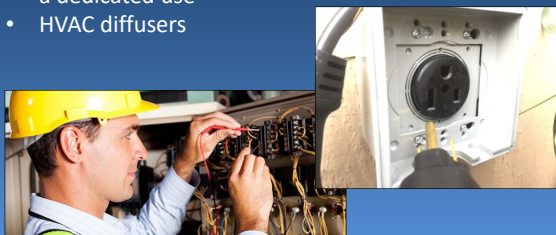
Operable Parts

- Light switches
- Circuit breakers
- Plumbing fixture controls
- Security and intercom systems
- Duplex and other convenience receptacles
- Environmental and appliance controls



205.1 General Exceptions

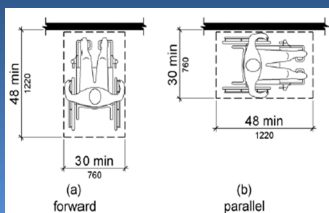
- Operable parts intended for use only by service or maintenance personnel
- Electrical or communication receptacles serving a dedicated use
- HVAC diffusers



309.2 Clear Floor Space



A clear floor or ground space complying with 305 shall be provided.



309.3 Height

Operable parts shall be placed within one or more of the **reach ranges** specified in 308.



309.4 Operation

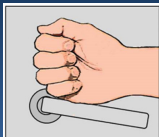
Operable parts must be operable with one hand and cannot require **tight grasping, pinching, or twisting** of the wrist.



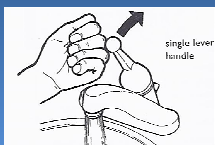
The force required to activate operable parts shall be **5 pounds** max.

Rule of Thumb

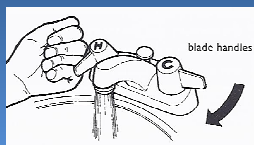
If an operable part can be operated with a closed fist, and it takes less than 5 pounds force to operate, then it is probably an accessible operable part.



Examples of accessible faucets:



single lever handle



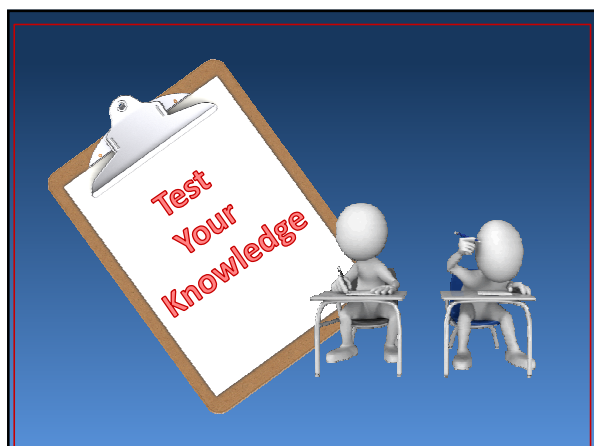
blade handles

309.4 Operation Exception

Gas pump nozzles are not required to provide operable parts that have an activating force of **5 pounds** maximum.



This exception does not apply to any other requirements of 309.



QUESTION

What products/types of products have the "ADA/TAS" Seal of Approval?





Neither the DOJ or TDLR endorses, certifies, or approves any products or manufacturers.

Next:
SECTION 3
Primary Function Areas
Employee Work Areas
Kitchens

[Go to Section 3](#)
